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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/747,804	12/29/2003	Mikhail Boroditsky	1209-49	1854
23869	7590	06/05/2006	EXAMINER	
HOFFMANN & BARON, LLP 6900 JERICHO TURNPIKE SYOSSET, NY 11791			NGUYEN, TU T	
			ART UNIT	PAPER NUMBER
			2877	

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/747,804

Applicant(s)

BORODITSKY ET AL.

Examiner

Tu T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 11-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>02/19/04, 03/17/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I (claims 1-10) in the reply filed on 05/15/2006 is acknowledged.

Drawings

Figures 1,3,4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 1-10 are objected to because of the following informalities:

Claim 1, line 4, "bandwidth B of the source" should be changed to "bandwidth B of a source".

Claims 2-10 are objected as being depended on an objected claim.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

To meet the requirements of 35 U.S.C. §101, "(t)he claimed invention as a whole must accomplish a practical application. That is, it must produce a useful, concrete and tangible result." M.P.E.P. § 2106(II)(A) (quoting *State Street Bank & Trust v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373, 47 USPQ2d 1596, 1601 (Fed. Cir. 1998)).

Claims 1-10 appear to be an abstract idea rather than a practical application of the idea. Claims 1-10 do not result in a physical transformation nor does it appear to provide a useful, concrete and tangible result. Therefore, claims 1-10 appear non-statutory.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA herein after) (figs 2, 3) in view of Damask (6,867,918).

With respect to claim 1, AAPA discloses a method for measuring a true mean differential group delay of at least one length of optical fiber 36 (fig 3). The method comprises the steps of: measuring a root square differential group delay (RMS DGD) averaged over a finite bandwidth B of a source 26 (fig 2); calculating a root mean square differential group delay in accordance with RMS DGD 24 (fig 2); and applying a systematic correction factor ϵ 28 (fig 2) to RMS DGD to calculate DGD 29 (fig 2), the application of ϵ minimizing a systematic error (inherent because fig 2 correct the error by multiply RMS DGD by a correction factor 28 (fig 2)) caused by the finite bandwidth B of the source, where DGD is in units of second, B in units of radian/second.

AAPA does not disclose calculating a square differential group delay by using a polarization mode dispersion measurement apparatus. Damask discloses a method for controlling a PMD by calculating the square of the DGD (column 7, lines 12-15). Since, Applicant does not disclose any connection between the step of measuring the square DGD with the other steps for measuring the true mean DGD in the claim, it would have been obvious to modify AAPA with Damask to measure the square DGD for different intended uses. Further, Damask does not disclose measuring the square DGD by using a PMD measurement apparatus. However, the claimed PMD measurement apparatus would have been known. It would have been obvious to modify Damask with the claimed PMD measurement apparatus to measure the square DGD more accurate.

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Claims 4-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA herein after) (figs 2, 3) in view of Damask (6,867,918) and Wight et al (6,734,955).

With respect to claims 4,6, AAPA does not explicitly disclose measuring the square DGD by using a time-domain or frequency domain measurement apparatus. Wight discloses a method for measuring dispersion in a network. The method suggests using both time and frequency domain apparatus (column 3, lines 13-16). It would have been obvious to modify AAPA with the time-domain or frequency domain measurement apparatus taught by Wight in order to use the system in different communication networks.

With respect to claim 5, AAPA disclose using an interferometric device 26 (fig 2) for measuring RMS DGD.

With respect to claim 7, AAPA does not explicitly disclose a polarimeter. However, the claimed polarimeter would have been known. It would have been obvious to modify AAPA with the known polarimeter to facilitate the measuring.

With respect to claim 8, AAPA disclose calculating the DGD by applying the claimed matrix (Specification, paragraph [0005]).

With respect to claim 9-10, AAPA disclose measuring DGD over a length of fiber (specification, paragraph [0003]). However, AAPA does not explicitly disclose the fiber is an optical fiber link or optical fiber route in an optical telecommunication network. It would have been obvious to modify AAPA to measure the DGD of the claimed fiber link or fiber route in the optical network to use the system in different environments.

With respect to claims 2-3, Due to the 101 problems discussed above, patentability of claims 2-3 could not be positively determined in this Office action. It appears that the cited references of record do not teach or suggest the claimed Factor e in claim 2. However, it is unclear how the claims will be amended, the patentability of these claims will be determined in the next Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu T. Nguyen whose telephone number is (571) 272-2424. The examiner can normally be reached on T-F 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Toatley Jr. can be reached on (571) 272-2800 Ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Tu T. Nguyen
Primary Examiner
Art Unit 2877

05/29/2006